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Chesterfield 21 May 23

Sir

Having despatcht a sheet by Mr Lupton I begin Commerce and by expressing a wish to see a specimen of Pyrus ~~Botr~~ ovalis L. a Willd. ii. 1013 in fruit with leaves, being inclined to think Michaux must be right in calling it a var. of P. Botryap. wch Ph. 6. examining. 5 Jugae. I long to see Trollius american. Dec. i. 313, at least a flower to dissect.

"Ilex canadensis Michaux" seems to belong to Winterlia Moench. meth. i. 74, & I hope you will find it a better specific name than canadensis. What think you of filipes. We wait for a reform of Ilex & Prinos from you, but I hope you will not divide them from sexual differences. If I am right in my specimen of P. verticillat. foliis subtus pubescentibus, Prinos. Clayt. a Gron. ed. i. & ii. can hardly be the plant. – Willd. indeed en. i. 394 makes P. vert. glabrous & P. padifol. subt. pubesc. but then the latter is described fol. basi obtusis! – My P. glaber has fol. integerrima.

Nothing excites my astonishment respecting the distribution of plants so much as the absence of Betula alba in the American flora. It makes me suspect that Michaux's nana must be pumila. I suspect Pursh inserted ~~it~~ nana on the authority of Michaux, & ~~says~~ adding that ~~the~~ only specimen he had seen a dried specimen of the plant in Mr Lamberts herbar.

"Ranunculus fascicularis" Dec. i. 291 from Big. who describes the foliola triloba & lacinia ~~interm~~ terminalis tripartito-pinnatifida, & laterales trilobae, not in my specimens. You may say also in your flora whether the phylla corollae are adpressa.

"Ranunculus filiformis" Michaux I consider with you ~~Decandolle to~~ to be rept. L. which I hold to be a variety of R. Flammula. I hope you will be able to compare the ripe fruit.

"Arenaria lateriflora" cannot be Linnaeus's Siberian plant. Does gracilis accord with the growing plant. Pursh does not say whether Banks's plant was American or Siberian.

"Cerastium arvense" is our plant. Why Pursh wrote "oblusis basi ciliat," I cannot guess. Perhaps what he examined was the β of Bot. m. m. .. Wahl. carp. says also "obtusiusculis" & Linn. & Spreng. ~~ob~~ "obtusis"!! which is not the case with all that I have examined dried or recent. Are Jacq. Wahl. & Spreng. copyists! Scop. long ago said "fol. non sunt obtusa". i. 321, & Moench. meth. i. 225, ~~as~~ reprobates it under form of the pleonasm of "lineari-lanceolatis acutis". I shall be obliged to you for a specimen in ripe fruit. Ours seldom if ever produces more than 4 seeds in a capsule. ~~[illegible]~~ the reference to Vaill. in C. repens Lin. sp. & Hort. Kew. ed. II. iii. 136 ~~[illegible]~~ is erroneous, as evident from fig. d. of Vaill. 30. f. 5, as I have long ago remarkt in Bot. am. ed. II. i. 478 ~~[illegible]~~

"Poa nervata Willd" is a beautiful little thing. Would it not be better to call it septinervis in which case the name is almost a specific character though we have phylla septinervia in Poa aquat. &

"Briza canad." Michaux i. 71 which I received from Dr. Cutler & named Poa glabra not having then discovered the peduncles to be scabrous perceptibly so only by a microscope or very good lens. I will venture to say it is P. aquatica. Pursh i 80. Michaux's plant found by you & Dr. C. in N. Engl. & N. York could hardly escape the searching eye of the American Petiver. My name won't do. I find the leaves to be scabrous. – The epithet brizoides is preoccupied. Will it bear the name of inclinans. or may it not merit the appellation of glabriflora. If you correspond with Mr Nuttal you may learn whether the descr. in the errata p. 11 is made from the same plant as the descr. at i. 69 note, & also whether at p. 69 sp. 1. "virens?" means that B. virens has been supposed to be a nat. of N. America, or whether he conjectures B. virens Walt. Pursh i. 82 to be the same plant with B. canad. Michaux. I long to examin some of the Poa & Briza Eragrostides of America.

"Poa reptans" Michaux i. 69. t 11 agrees with the fig. but not with the character of "minutissime pubens"; nor is "capit. subcapit. fasc." characteristic, nor are the spikes to be calld long, nor the flowers subaristate. I like Lamarks name in Pers. ench. i. 91. n. 48 & Roem. & Schult. ii. 589 of P. hypnoides, but then the female spikes, are described "50–60 floris", long indeed! ~~If~~ The spikes are microscopically pulverulent. His editor perhaps misunderstood Michaux. Mr N.s expression of "Ambiguous sp." is ambiguous indeed. If you correspond with him I shall hope to know whether he considers it as a variation of some of the others. But your flora will I hope remove all ambiguities.

"Trichodium laxiflor." Michaux i. 42. t. 8 is Agrostis scabra L. a W. for this as well as Agrostis anomala L. a W. have a diphyllous calyx, though the inner phyllum is minute. These scarcely differ, & are probably varieties. You who have seen both growing can better judge. I once cultivated A. anomala. In your Flora I hope to read at what period of its growth it has the panicula divaricata of Michaux's fig.

Is Walter or Frazer the empiric alluded to by Mr. Nuttal. We call Richardson an enthusiast.

"Cinna arundinacea" L. is Agrostis Cinna, Willd. enum. i. 95. I wish to say what I think it is before I close my letter.

Agrostis mexicana L. ~~Nutt. i. 46~~ is a different plant from Calamagrostis mexicana. Nutt. i. 46.

MAR 4 - 1907

"Leerſia oryzoides" L. et Willd. is the ſame plant with that of Germany.
L. —— virginica —— is I think, ſpecifically diſtinct, tho Michaux thinks otherwiſe
I wiſh I could ſee them in fruit.
I ſhall hope for ſpecific diſtinctions in your Flora of Iris virg. & verſicolor from the fruit, for
til I ſee the fruit of both I muſt regard them as varieties of one ſpecies I. verſicolor.
"Phalaris arundinacea" is the ſame with that of Europe.
"Holcus fragrans" L. et W. I conſider as a variety of H. odoratus variations of the European variety having been
made ſpecies! but if you hold an oppoſite opinion I will ſupply you with arms againſt myſelf &
with which you will perhaps overcome me. The inner ſtylum of the intermediate flower in H. fragrans
is binervoſe, & in H. odoratus uninervoſe! in both varieties of ariſtate & muticous.—
H. lanat. L. from Dr. Cutler. How ſingular that you have yet found H. mollis, unleſs Aira mollis.
Nutt. i. 62. n. 9 be the plant.
If Spiraea hypericifolia be an American plant how did it eſcape the obſervation of Michaux.
S. Aruncus, fol. bipinnatis florib. hermaphr. & maſc. Gou. Ill. 31. On M. Laurent in the Pyrenees. I inſert it
becauſe omitted to be referrd to by our compilers, & that you may compare it with ye American plant.
I ſhall be very thankful for a ſpecimen of S. hypericifolia in fruit, or any of its allies in p. 342 of Purſh i.
"Feſtuca nutans Willd." enum. i. 116 I conſider as a Poa not admitting his diſtinct. of ſem. liberum & adnat.
"Alopecurus geniculatus" is β L. ſp. i. 89 with glaucous petioles. It ſeems to be A. ariſtulat. Michaux
A. carolinianus. Walt. 74 is deſcribed glumis laevibus.
"Panicum latifolium L." I have alſo gathered by Dr. Johnſon in Penſylvania. I intend to refer to P.
paniculat. ſl. mut. Clayt. a Gron. ed. II. 11; ed. I. 12 with Toſt. J. amer. but I have not Pluk. at hand.
"P. virgat. L" is an intereſting novelty. Your flora will ſay whether the panicle is alw. ſparſe.
"Viola pubeſcens" Soland. ap. Hort. Kew. ed. I is Nutt. i. 150 var. β eriocarpos. Dr. Cutlers ſpecimen
which I omitted in Bot. mat. med. i 441 is his α. One of the leaves of Dr. C's is thrice as broad as yours
owing to its more advanced ſtage of growth, it being in fruit.
"Spartina cynoſuroides" Roth & Willd. en. is an intereſting ſpecimen. The compound ſpikes in
Lin. fil. faſc. t. 9 are repreſented as patulous, which in yours are adpreſſ. What is Dactylis.
Clayt. a Gron. ed. II. 14 whoſe ſpiculae are muticous. Probably Trachynotia, unca or
polyſtachya, in whoſe ſp. characters in Perſ. ench. no notice is taken of ariſtae.
"Elymus Hyſtrix" is too ripe for me to find Mr Nuttals rudiment of a bractea.
"Trichophorum cyperin." Purſh I call Eriophorum cyperinum with Linnaeus. I ſhall be
much obliged to you for a ſpecimen in fruit.
"Scirpus tenuis Willd. en." is S. capitatus Linn. ſp. i. 71, from Clayt. a Gron. 12 ed. i, but
whether ~~of~~ the indefinit name of capitat. is worth keeping may admit a doubt. tenuis is
Scarcely better. I have it in flower & fruit from Dr. Cutler. How happend it that it eſcaped
the obſervat. of Michaux, for his S. tuberculoſus for a ſpecimen of which I long for in fruit, muſt be diſtinct.
I wiſh alſo to S. ovat. of Purſh i. 54.
"Scirpus ~~acicularis L~~ trichodes" Muhl. is as you obſerve "not very diſtinct from S. acicularis"
I cannot diſtinguiſh it but by its ſtems being as broad as 2/3 of the hair of my head; thoſe of the
European plant ~~being~~ are as broad as 1/3 of the ſame hairs. I ſhould be glad to ſee the ripe ſeeds.
S. capillaceus Michaux i. 30, S. puſill. Vahl. en. i. 246 is probably ~~only~~ a variety of it.
Linnaeus ſpeaks of its moſtly growing under water.
"Plantago cordata" Purſh i. 98 appears to me to be a variety of P. major, in which laſt the
leaves are as cordate as in P. cordata. There is a brown lanugo at the baſe of the petiole in
P. cordata. I ſhall be glad to read in your flora a deſcr. of the living plant, eſpecially of the calyx.
Purſh ſays P. major is common with you
"Rubus hiſpidus. L. from a garden. Linn. deſcribed it from a ſpecimen gathered by Kalm
in Canada. How did it eſcape Michaux & Purſh for the latter ſubjoins the croſs of nonviſum,
tho he gives a new ſp. ch. & ſays what ſpecies it reſembles! I hate marks. It does not ſeem to
be a variety of what I ~~[illegible]~~ referrd, to R. flagellaris Willd. en. i. 549. The flowers at leaſt are
twice as large in R. flagellaris.
I long for N. American Spermacoces & Diodias to compare with Weſt Indians.
"Smyrnium integerrimum" L. I refer with Spreng. ap. Roem. & Schult. vi. 410 to Siſon, but the
inſpection of ripe fruit may perhaps bring me back to Smyrnium. But if a Siſon it is a diſpen:
~~[illegible]~~ of Bot. mat. med. i. 141, following ~~[illegible]~~ P. Aniſum.
Lycopod. ~~nit~~ lucidulum Michaux is an intereſting plant.—L. reflexum Sw. fil. 175 is perhaps the better name.
L. Selago L. is nitid ~~ulus~~ alſo. Lucidulum in the language of Linn. implies alſo diminutive ſize.
Lycopod. complanatum L. is the ſame with that of Europe, but the branches of your ſpecimen are
narrower than any of my ſpecimens, whether from N. Engl. or Germ.
Mr. Eliot of Boſton will ~~be~~ carry this with him to America, & if engagements ſhould have prevented
you from ſending me Bigelows fl. boſton. & a cat. of plants growing near New York. Or Albany 1819
under which articles in the liſt of books which I wiſhed Mrs Lupton to procure for me, you wrote "ſhall be
ſent", he will endeavour to procure them for me ~~[illegible]~~ but ſhould you have ſent them off he will repay what they coſt.

Given by A. M. VAIL

"Gentiana crinita" Linn. & Willd. was named in my letters about 1789 to 91 to Dr. Cutler G. fimbriata cor. 4fida, laciniis apice ciliatis, but it was reserved for your fasciculus to shew me this American beauty in her native freshness. ~~this~~ Meadow Bluebells. Cutl. in amer. acad. i 411.

"Helenium autumnale" L. — My specimens are pubescent, some to the naked eye, wch is H. pubescens wch Pursh very justly makes his β. I wish you would find us a better name for a syngenesious plant! What say you Americans who see them all growing to reflexum.

"Panax quinquefolia" L. is a most acceptable specimen. I hope you will be able to sow fertile seeds & observe whether the cotyledons are ternate as Linnaeus's observation intimates.

"Rhus Toxicodendron" I should rather call Rh. radicans. Pers. ench. i. 325 n. 19β, unless you can support Linnaeus in his R. Toxicodendrum adopted from Clayt. & Gron. I should like to examin the fruit of R. Toxicodendron β & γ Pursh i 205. The name of R. quercifolium does not accord with any of my specimens. Mr Nuttal still thinks them distinct but does not state why. I hope you will establish the boundaries between them, whether varieties or species. I have never seen foliola obcordata as in Miller Rh. Toxicodendr. only. I wish for the most pubescent.

"Gaultheria hispidula" if you have found the calyx changed into a berrylike, substance as in G. procumbens, should be called serpyllifolia, not only because characteristic but because G. hispida is the name of antarctic species. I hope at a future day to be favoured with a recent berry. In Michaux fig. the fruit is a bacca ^infera^ the work I suspect of the draughtsman or engraver. In my specimen gathered in Fothergills garden the caps. was semiinfera.

You have got long ago I doubt not Steudels nomencl. an elaborate work without which no botanist can venture to name a plant or look out for a better. & Trattinnick synod. bot. pars i Dec. Prodr. i & Syst. ii ^reached^ you perhaps before me. Hoping that this spring may have brought out your flora I remain with much respect Sir

Yr. obliged & obed.t Servt
Jonathan Stokes.

6 July 24.

I have the pleasure to say that Mr & Mrs Lupton & their family have enjoyed good health since their return

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Boston 2d Sepr 1824. Mr. Eliot has just returned from England, & has the pleasure to forward the above letter to Dr. Torrey from Dr. Stokes, & takes the liberty of requesting Dr. Torrey to inform him if the books desired by Dr. Stokes have been forwarded to him. If not, Mr. E. will charge himself with the commission. If Dr. Torrey has incurred any expence on account of Dr. S. he will be happy to be permitted to liquidate it. — Mr. E.'s address is Saml. A. Eliot, Boston.

Given by A. M. VAIL. from the J. J. Crooke Collection MAR 4 - 1907

Dr. Torrey

New York

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Jonathan Stokes.
May 21st. 1823 – July 6, 1824
Read. Sept. 1824

BOSTON SEP 5 Ms.